



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

K.4
4/9/99

VIA TELEFAX AND
REGULAR MAIL

April 9, 1999

REPLY TO THE ATTENTION OF

Jeff Leed, Project Coordinator
Leed Environmental
124 Deborah Drive
Reading, PA 19610

Dear Mr. Leed:

The United States Environmental Protection Agency (U.S. EPA) and the U.S. Army Corps of Engineers (U.S. ACE) have completed review of the Remedial Action (RA) Work Plan- Pile dated February 25, 1999, for the NL Industries/Taracorp Superfund Site in Granite City, Illinois (the NL Site). On March 15, 1999, U.S. EPA provided comments and modifications for those portions of the work plan identified as being on the "critical path". The U.S. EPA hereby approves with modifications the remaining portions of the RA Work Plan-Pile. The modifications are indicated in the enclosure to this letter.

In accordance with the *draft* Consent Decree, you must address the modifications contained herein and the modifications in the March 15th letter. You can either let the document stand with the modifications herein or submit a revised work plan or replacement pages. Regardless of which option is chosen, ENTACT may proceed with work under the approved work plan, contingent upon EPA receipt of a letter from the Settling Defendants committing to sign the Consent Decree within two weeks of their receipt of signature pages from EPA. If you have any questions about this work plan, you may call me at (312) 886-4742.

Sincerely,

Brad Bradley
Remedial Project Manager

Enclosures

cc: Bob Rogers, Illinois EPA
Timothy Healy, ENTACT
Charles Settles, U.S. ACE
Larry Johnson, U.S. EPA
Sheri Bianchin, U.S. EPA

EPA Region 5 Records Ctr.



260573

**MODIFICATIONS AND REVIEW COMMENTS
REMEDIAL ACTION WORK PLAN
FOR THE
TARACORP PILE CAP
NL INDUSTRIES/TARACORP, GRANITE CITY, ILLINOIS**

MODIFICATIONS

A. General

1. Any major modifications or changes to the current design will require prior written approval from U.S. EPA. Certain minor modifications may be subject to field approval; however, these modifications must be documented in writing. Furthermore, any items for which modifications are sought, must be submitted to U.S. EPA as soon as possible in advance; it would be best if submitted at least 20 calendar days in advance of the scheduled use/activity in order to facilitate timely review and evaluation. The intent of the submittal process is to have the items approved in advance prior to their use/implementation.
2. Prior to removing the UST, all proper notifications must be made, per state and local requirements.
3. U.S. EPA and U.S. ACE are still reviewing two items in the Work Plan-Pile and will forward comments as soon as possible if any changes are needed based upon this review. These items are: 1) the suitability of the Spectrace 9000 for this job, and 2) the proposed change to the thickness of aggregate base course for asphalt and concrete drive installation.
4. All modifications should be carried through to any other portions of the document that are thus affected by the modifications.

B. Specific

1. **Page 1, section 1.1, Site Description and History, bullet 1.** Change "Main Industrial Properties" to "Main Industrial Area".
2. **Page 2, Section 1.1, Site Description and History, 1st paragraph.** Replace with following: "U.S. EPA tasked Woodward Clyde Consultants to complete and issue a final report providing the results of the soil sampling activities in the residential areas. U.S. EPA subsequently tasked the Army Corps of Engineers to 1) complete the design and perform the removal of lead-contaminated soils and battery chips in the adjacent residential areas and remote fill Areas associated with the NL/Taracorp Site in Granite City, Venice and Madison, and 2) complete the remedial design for the industrial areas."
3. **Page 2, Section 1.1, Site Description and History, 1st paragraph.** It should be noted that Several motions were brought into court by certain parties including several PRPs seeking a temporary restraining order/preliminary injunction against U.S. EPA in an attempt to halt the cleanup. This lawsuit resulted in a U.S. EPA reopen the record and again accept public comments, and in September 1995, EPA reaffirmed the remedy, adding a groundwater containment component in a Decision Document/Explanation of Significant Differences.

4. **Page 5, Section 2.2, first line-** delete "general".
5. **Page 5, Section 2.2, third bullet-** insert "and Drawings" between "Specifications" and "with".
6. **Page 6, Section 2.3, first sentence-** replace "a supporting guidance document to the RA Work plan" with "the underlying document for the RA Work Plan-Pile"
7. **Page 7, Section 2.3, Modifications...** It is highly recommended that Section 01300 - Submittal Procedures may not be totally eliminated for the simple reason that product specifications and samples of materials to be used in the work need to be submitted for review and evaluation in order to ensure that the quality of materials as specified is attained. Manufacturers' specifications and samples of geo-synthetic clay liner, geo-membrane, geo-composite drainage layer, geo-grid soil reinforcement, security fence materials, metal sheet piles, concrete reinforcing steel and concrete mix proportions are some of the items that need submittal. In conjunction with this section, the submittal register is a tool used for scheduling and control purposes. Items must be submitted at least 20 calendar days in advance of the scheduled use in order to facilitate timely review and evaluation. Other work items recommended for submittal include those that had the U.S. ACE specifications partly or totally modified and will be noted as this review progresses. The intent of the submittal process is to have the items approved in advance prior to their use.
8. **Table 2-1, "Backfill Activities"-** State that " the final 12 inches of backfill must contain less than 500 ppm lead" at the end of this section (See also comment #7 on U.S EPA's March 15th comment letter.)
9. **Page 8, Section 3.1, Remedial Action Management Team.** Bullet for ACOE Representative Project Supervisor. Change subparagraph to read, "U.S. ACE Construction Representative, Charles Settles, Jr. U.S. Army Corps of Engineers, Chicago District." Add the following after the second sentence: " Mr. Settles' primary function is to serve as on-site observer and to provide oversight on behalf of the U.S. EPA, and to serve as the primary liaison to U.S. EPA. Mr. Settles is tasked, as an EPA representative, to shut down operations if conditions warrant, such as exceedance of the visible emissions standard. The last part of the last sentence under this subparagraph should be changed to read ".....is adhered to and will coordinate proposed design modifications with the U.S. EPA and U.S. ACE Chicago District."
10. **Page 20, Section 5.1.1, first bullet-** The first part of this sentence is replaced with "Placement of materials from the SLLR pile into the lined area adjacent to the Taracorp pile, to be...."
11. **Page 34, Section 5.7, first sentence-** insert "in contaminated areas (i.e. pre-excavation main industrial site areas)" between "possible" and "wastewater".
12. **Page 36, Section 5.8-** this section must be amended to reflect that the 40 dross drums will be transported to the lined portion of the expanded Taracorp pile and deposited there. This comment also applies to Section 6.4.4.
13. **Section 6.2, Demolition.** Add the following statement at the end of the last paragraph, per amendment No. 003 dated March 21, 1997, of the U.S. ACE Specifications. "The contractor shall take a representative sample of the pavement material for TCLP-Pb analysis for disposal determination."
14. **Page 54, Section 6.6.6, Turf Installation and Soil Erosion and Sedimentation Control, last paragraph.** Delete the last 3 sentences starting with sentence . "In lieu of Add the following, the precise type of seed mixture will be approved by EPA prior to installation. EPA is enclosing an example of a seed mixture which may be appropriate.
15. **Page 53, Section 6.6.1, Geo-synthetic Clay Liner.** It is highly recommended that product catalog, test results or certification from the manufacturer be submitted for review to determine if the proposed modification is an

acceptable equal of the originally specified material. This comment also applies to Sections 6.6.2, 6.6.3, and 6.6.4.

16. **Page 54, Section 6.6.6 Turf Installation and Soil Erosion and Sedimentation Control.** The proposed modified seed mixture must be submitted for review and evaluation to determine if the proposed modification is an acceptable equal of the originally specified seeding. As was indicated in the approved work plan, a separate seeding and maintenance work plan will be required for review and approval. Please find enclosed herein an example seed mixture for your consideration. Also be sure that any straw or that is used be "weed-free" so as not to compete with the grass and flower seeds.
17. **Page 55, Section 6.8-** this section must be updated per changes that have been requested by the owners of Trust 454 and conceptually agreed to by EPA and ENTACT.
18. **Page 55, Section 6.9, Retaining Wall Construction,** - It is highly recommended that any retaining wall design modifications be submitted with enough lead time for timely review and evaluation by the government. Any such submission must contain accurate estimates of the increased quantity of materials that must be graded as a result of such modifications.
19. **Page 56, Section 6.12, Storm Drainage System.** Same comment as above regarding the proposed design modification of the storm retention basin.
20. **Page 58, Section 7, Waste Management and Transportation and Disposal, first sentence-** substitute "as described below. All documents and manifests for all wastes removed from the site for off-site disposal shall be reviewed with the U.S. ACE on-site representative prior to shipment." for "as follows:" at the end of this sentence.
21. **Page 58, Section 7.1, second sentence-** delete "deteriorating drums containing lead-impacted materials and" from this sentence.
22. **Page 58, Section 7.2, Contingency Plan for Off-site Transportation ... ,second paragraph.** Add at the end of this paragraph, " for U. S. EPA written approval".

COMMENTS TO BE CONSIDERED-these comments are not required modifications

1. **Page 1, Section 1.1, Site Description and History, 1st paragraph.** Rewrite as follows: "As is explained more thoroughly below, the NL/Taracorp Superfund Site consists of several areas, which are 1) the Main Industrial Areas, 2) Adjacent Residential Areas , and 3) Remote Fill Areas."
2. **Page 1, Section 1.1, Site Description and History, 3rd paragraph** Rewrite the last sentence as follows: "U.S. EPA selected the remedy for the Site and issued a Record of Decision (ROD) in March 1990. After U.S. EPA initiated negotiations with the PRPs, and did not receive a good faith offer, then later in 1990, U.S. EPA issued a Unilateral Administrative Order (UAO). When work was not conducted by the PRPs in accordance with the UAO, U.S. EPA undertook implementation of the remedial action. To facilitate and prioritize remedial activities, U.S. EPA divided the Site into the following three areas. . . ."
3. **Page 2, Section 1.1, Site Description and History, bullet 2.** Change "Adjacent Residential Lots" to "Adjacent Residential Areas." Also, add in that over 100 blocks in the adjacent residential areas appear to be affected.
4. **Page 2, "Remote Fill Areas" Paragraph-** insert "several locations in Granite City" between "Road" and

“and”.

5. **Page 5, Section 2.2 Performance Standards.** Replace “on-site” with “on the main industrial areas”.
6. **Table 2-1, 6th bullet, Transportation and Off-Site Disposal.** Change “bills of loading” to “bills of lading”.
7. **Table 2-1, Section 2, paragraph 9.** - Verify if the Office of the State Fire Marshall is required to conduct site inspection and issue certification at the closure of the 20,000 gallon UST removal.
8. **Page 10, Section 3.1, Remedial Action Management Team, “On-Site QA/QC Officers” Section-** Add to the end of the first sentence. “such as . . . (give several examples here).”
9. **Page 10, Section 3.1, Remedial Action Management Team, On-Site Field Managers.** It is highly recommended that the On-Site Field Manager not be a working field manager as is the case with the residential stack emissions cleanup. His time should be dedicated solely to field supervision and management to enable him to oversee the job from an overall viewpoint. He should be able to anticipate potential problems and prevent or resolve them immediately. A case in point is the potential problem of dust control especially during dry and windy days. Someone has to anticipate such occurrences and give directions to mitigate the problem. Our early experience at the residential cleanup was, it was difficult to immediately locate a field supervisor when a problem arose because he was at another site operating equipment instead of supervising the work.
10. **Page 11, Section 3.1, Remedial Action Management Team, Corporate Health & Safety Director.** As written it is our understanding that the Corporate Health and Safety Director conducts inspections onsite periodically and no qualified health and safety officer is onsite on a daily basis. It is highly recommended that a specially trained and qualified health and safety officer be onsite daily in order to evaluate the site safety conditions during intrusive activities that may necessitate work shutdown, as stated under Section 4, paragraph 4.10 Dust Control Procedures, middle of page 19. A qualified health and safety officer is also needed to evaluate the changing hazardous conditions that may require the modification of PPEs worn by the workers especially during extremely hot or cold weather days. These are just some of the many instances where the daily presence of a qualified health and safety officer is required.
11. **Page 14, Section 4.1, Pre-construction Conference.** Add that the preconstruction conference was held on March 29, 1999.
12. **Page 14, Section 4.3, Security.** Under this paragraph it is highly recommended to include a list of emergency points of contact including their telephone numbers and or radio frequencies so that dependable emergency responses can be executed 24 hours a day. A highly visible copy will be posted at the security office.
13. **Page 14, Section 4.3, Security.** Under this paragraph it is highly recommended to include a Standard Operating Procedure, describing security response to foreseeable emergencies like accidents, fire, tornadoes, etc. A copy will be posted at the security office.
14. **Page 19, Section 4.11, Project Schedule.** Please update the project schedule.
15. **Page 29, part d.-** To match up better with the XRF results, a four-point composite should be considered, rather than just collecting “a sufficient amount of soil”.
16. **Page 42, section 6, paragraph 6.3, UST Removal.** If found to be not empty, explain what will be done with the contents, i.e. treatment and disposal of sludge. For example provide information regarding whether the tank will be removed from the site intact or will it be cut up and decontaminated prior to disposal.

17. **Page 45, Section 6.4.6, Concrete Removal.** Concrete rubble, if approved to be used as backfill at the industrial property excavations or at the top 12 inch layer of the random fill, shall be crushed to not greater than 3 inch particle size to meet the requirement for suitable backfill material. This will also prevent the possibility of puncturing the geo-synthetic clay liner of the pile cap.
18. **QAPP, Page 6, Section 2.3-** delete the first sentence of this section and "In addition" from the second sentence of this section.
19. **Appendix D, Page 4, Paragraph 2.3, Project Superintendent** - The designated Project Superintendent for the Pile Cap Project, the Stack Emissions Removal and the Health and Safety Officer is one and the same individual. With all due respect for him, it is our utmost concern that the duties and responsibilities of anyone of these positions may be jeopardized during the peak of the construction season. He will be too pre-occupied with the technical and management aspects of both projects that he may not efficiently fulfill his responsibilities as Health and Safety Officer. In conjunction with comment No. 9 above we firmly believe that a specially trained Health and Safety Officer be assigned and be present at the job site on a daily basis. Furthermore, he may not have the training as a Health and Safety Officer.
20. **Appendix D, page 14, second sentence-** the frequency of monitoring (every two months) does not seem adequate for an individual with a demonstrated blood lead level of 40 ug/dl.
21. **Appendix D, Page 23, Table 4.4.** Include the following under Excavation Hazard: Source - Trench excavation; Control Measures - trench side slopes to conform with soil angle of repose or shoring.
22. **Appendix D, Page 180, Attachment U.** Attachment U, Layout of Work Zones is missing. Include a schematic diagram of the PPE drop off stations in proper sequence of disrobing, properly located at the exit from the exclusion zone to the CRC zone.
23. **Appendix D, General Comment.** Include a copy of the MSDS sheets in the Health and Safety Plan.
24. **Appendix D, General Comment.** Post a highly visible copy of the street map showing the emergency route for hospital evacuation at the security and safety office.

Enclosure

LANDFILL SEEDING OPTIONS

Cover Crop

Regreen - 20 lbs./acre

Oats - 1 ½ Bushels/acre

Bison Tetraploid Rye - 2 ½ lbs/acre

Timothy - ½ lb/acre

This mix will provide immediate erosion control, as well as some perennial vegetation for the next 2 to 3 years. The oats will die out this winter and not come back, thus leaving some areas more open for sun to reach the prairie seeding. The Regreen, Timothy and rye will green up again next spring, with the Regreen gradually fading into the third year. The Timothy and rye will last longer but will gradually disappear over the next 3 or 4 years as they are outcompeted by the prairie species

Prairie Seeding - Per Acre

Roundtree Big Bluestem - 4lbs PLS/acre

Indian Grass - 2 lbs PLS/acre

Little Bluestem - 2 lbs PLS/acre

Sideouts Gramma - 1 ½ PLS/acre

Cave-in-Rock Switchgrass - ½ lb PLS/acre

Osenbaugh Wildflower Mix - 3 lbs/acre

The prairie seeding will be interseeded in the cover crop next spring as early as it is possible to work the ground. This may require an initial mowing of the cover crop, depending on the height at that time. Throughout the season the cover crop will need to be monitored to determine the time of mowing. The main purpose of mowing is to allow enough sun to reach the young prairie seedings so that they can develop. This could mean about 2 to 3 more mowings throughout the season. By the next year no mowing of the cover crop should be needed; however, the area should be monitored for weed encroachment and weed mowing may be needed in the early summer. If everything works right, the cover crop should keep the weeds out.

Estimated Costs: \$125.00 per acre

Courtesy of Martha Maxon- Rust Environmental